

CLAIMS

We claim:

1           1.     A method of producing a printing plate comprising  
2                providing a thermal transfer film carrying a thermal transfer material in proximity  
3     to a surface of a printing plate carrier,  
4                selectively ablating said thermal transfer material using a laser image-setting unit  
5     to apply structure information directly to the surface of said printing plate carrier, thereby  
6     forming a mask directly on said printing plate carrier, and  
7                forming image points and non-image points directly on said printing plate carrier  
8     using said mask in order to produce a printing plate.

1           2.     A method as in claim 1 wherein said printing plate is a gravure printing  
2     plate.

216 1           3.     A method as in claim 2 wherein said mask is an etching mask which is  
2     applied to the surface of the printing plate carrier, said method further comprising etching  
3     gravure printing cells by applying acid where said thermal transfer material has been ablated.

1           4.     A method as in claim 3 wherein said structure information is applied to a  
2     variable area of said surface with a constant thickness using an autotypical image-data process  
3     during ablation of said transfer material using said laser image setting unit.

1           5.     A method as in claim 1 wherein said printing plate is a flexographic  
2     printing plate.

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1 6. A method as in claim 5 wherein said printing plate carrier comprises a  
2 light sensitive coating which forms said surface, said mask being a copying mask which is  
3 applied to the surface of said carrier, said method further comprising exposing said light-  
4 sensitive coating through said mask by means of a copying lamp in order to form image points  
5 and non-image points on said light sensitive coating.

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1 7. A method as in claim 6 wherein said copying mask is a positive copying  
2 mask.

1 8. A method as in claim 6 wherein said mask is a negative copying mask.

1 9. A method as in claim 1 wherein said printing plate is a screen-printing  
2 screen.

1 10. A method as in claim 9 wherein said mask is a copying mask.

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1 11. A method as in claim 10 wherein said printing plate carrier comprises a  
2 network-like fabric structure which forms said surface, said fabric structure being coated  
3 throughout with a light sensitive material, said method comprising applying said copying mask  
4 to said fabric structure and exposing said light-sensitive coating through said mask by means of a  
5 copying lamp in order to form image points and non-image points on said light sensitive coating.

1 12. A method as in claim 10 wherein said copying mask is a positive mask.

1 13. A method as in claim 10 wherein said copying mask is a negative mask.

1                    16.    A method as in claim 1 wherein said mask is formed in a printing  
2    machine, and said printing plate is produced by means of said mask in said printing machine.